

ON A NEW MELICERTIAN AND SOME VARIETIES OF MELICERTA  
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SOME years since, a friend submitted to my examination a Melicertian, which could not be assigned to any known genus. Drawings were carefully made at the time, with the aid of the neutral tint reflector, and copies of these I now beg leave to lay before the members of the Quekett Club.

It will be seen that the new rotifer bears a general resemblance to *Limnias ceratophylli*, from any close alliance with which, it is, however, removed, by a higher type of organisation. A viscid sheath, to which excrementitious and extraneous matters adhere, equally characterises this species and *Limnias*; but it is slightly curved and more contracted at the base. The rotary disk is bilobed, a double wreath of cilia surrounding its margin. Two well developed water vascular canals or siphons, conspicuously prominent when the animal is seen emerging from its sheath, would indicate a nearer structural approximation to *Melicerta* than to *Limnias*, in which these organs are altogether wanting. The pharyngeal bulb also bears a close resemblance to that of *Melicerta*. Length of sheath  $\frac{1}{75}$ ; of extended animal, about  $\frac{1}{35}$ .

In the Quarterly Journal of Microscopic Science (1867, p. 14), Mr. Davis described a rotifer under the name of *Æcistes longicornis*, which appears to be nearly allied to the one now described and figured, which that gentleman felt a difficulty in consigning to any recognised genus, and while calling it an *Æcistes*, and noting its resemblance to *Limnias*, evidently considered it as belonging to neither. Should it not rather have been brought forward as the type of a new genus, in which the *Tubicola* I figure would have found its place? While, therefore, for the purpose of artificial classification, venturing to constitute a new genus for their reception, for which the name of *Limnioides* is proposed, and the specific one of *myriophylli* for that now described, I would yet enquire if many of these animals are, after all, so generically distinct? Whether through variability such connecting links may not eventually be met with as to afford reasonable grounds for suspecting an insensible graduation into each other? Found on *Myriophyllum spicatum* and *Ranunculus aquatilis*, associated with *Melicerta ringens* and *Cephalosiphon Limnias*, the idea not unnaturally pre-

sents itself; and if I shall not be considered too much infected with Darwinian doctrines, I would hazard the assertion that these three species, together with *Limnias*, have but one common origin. Traced downwards from *Melicerta ringens*, through its varieties (drawings of some of which are laid on the table for comparison with the connecting link which the subject of our notice supplied), it will be seen that by easy stages of degradation, through arrest of development or suppression of parts, *Limnias ceratophylli* will at length be arrived at.

In the variety of *Melicerta*, No. 1 (*Fig. 2, pl. 7*), we have an animal, though otherwise perfect, in which the cup-like rotary organ, which, for the sake of expressive phraseology, we will call the "Pug-mill," is wholly wanting. It results, therefore, that unable to mould pellets and construct the neat wall of masonry of *Melicerta* proper, it is invested only with the ordinary amber coloured gelatinous secretion.

In variety No. 2 (*Figs. 3 and 4, pl. 7*), a further arrest of development has taken place; the four-lobed rotary disk of *Melicerta* is, though still ample, reduced to two, and without "Pug-mill," only rudely shaped excrementitious masses adherent to the gelatinous investment are observed.

In the third variety (*Fig. 1, pl. 7*), these conditions of degradation are still more advanced—no "Pug-mill," an undivided ciliary organ, and but a single siphon.

Passing by *Limnioides myriophylli* (*Figs. 3, 4, and 5, pl. 6*), which we have already endeavoured to connect with *Melicerta*, we come to *Cephalosiphon Limnias* (*Figs. 6 and 7, pl. 6*), with two smaller rotary lobes and single siphon, which may possibly be formed by the coalescence or soldering together of two siphonal tubes into one long conspicuous canal, with a much contorted viscid sheath, coated with extraneous substances; and, lastly, we descend to *Limnias ceratophylli* (*Figs. 1 and 2, pl. 6*), with two small lobes and water vascular canals wholly suppressed.

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#### DESCRIPTION OF PLATES.

Plate 6, Fig. 1 & 2, *Limnias ceratophylli* ... × 100  
 Figs. 3, 4, 5, *Limnioides myriophylli* ... × 190  
 Figs. 6 & 7, *Cephalosiphon Limnias*... × 100

Plate 7, Fig. 2, *Melicerta ringens*... Var. No. 1 × 190  
 Figs. 3, 4... Var. No. 2 × 100  
 Fig. 1 ... Var. No. 3 × 100